

Claims.

1. (Original) A hand-held unit for facilitating the imaging of an area of a patient's skin comprising
  - a hand-held case,
  - a source of light inside the case for directing light toward the front of the case,
  - an imaging device in the case for generating imaging signals from light derived from said area of skin, and
  - at least two cones attachable to the front of said case each having
    - a transparent window for bearing against an area of skin,
    - each of said cones serving a different function and having properties different from the other cones, but all cones positioning their respective windows at the same distance from said imaging device.
2. (Original) A hand-held unit in accordance with claim 1 wherein at least one cone has multiple colours around its transparent window permanently in the field of view of said imaging device to aid in the calibration of said imaging device.
3. (Original) A hand-held unit in accordance with claim 2 wherein said colours are on the outside of said window so that the colours are imaged in the same plane and under the same optical conditions as the patient's skin when the window bears against the patient's skin.
4. (Original) A hand-held unit in accordance with claim 1 further including

a cone attachable to the front of said case and having  
a non-transparent planar section at the front thereof whose colour is a  
known reproducible reference colour.

5. (Original) A hand-held unit in accordance with claim 1 wherein at least one cone is adapted to have a removable layer of a known reproducible colour attached thereto.

6. (Original) A hand-held unit in accordance with claim 5 wherein said removable layer is on said window such that upon removal it cannot be re-used.

7. (Original) A hand-held unit in accordance with claim 1 wherein at least one of said cones is adapted to permit the imaging of a lesion, and another of said cones is adapted to permit the imaging of a relatively substantial portion of the patient.

8. (Original) A hand-held unit in accordance with claim 1 wherein said source of light includes a plurality of individual light sources facing the front of the case with a diffuser in front of each of said sources.

9. (Original) A hand-held unit in accordance with claim 8 wherein said plurality of individual light sources are arranged in a plane, with each of said light sources being slightly inclined to a central axis of the hand-held unit.

10. (Original) A hand-held unit in accordance with claim 1 wherein said source of light includes a plurality of individual light sources facing the front of the case and arranged in a plane, with each of said light sources being slightly inclined to a central axis of the hand-held unit.

11. (Original) A hand-held unit in accordance with claim 9 or 10 wherein pairs of intensity distributions from said individual light sources are spatially separated such that they overlap at their half-intensity levels so that the resulting summation of their intensities has a flat central region.

12. (Original) A hand-held unit in accordance with claim 9 or 10 wherein pairs of intensity distributions from said individual light sources are spatially separated such that they satisfy the Raleigh criterion for the separation of two Gaussian pulses.

13. (Original) A hand-held unit in accordance with claim 1 wherein said source of light includes a plurality of individual light sources facing the front of the case and arranged in a plane, with pairs of intensity distributions from said individual light sources being spatially separated such that they overlap at their half-intensity levels so that the resulting summation of their intensities has a flat central region.

14. (Original) A hand-held unit in accordance with claim 13 wherein there are four individual light sources arranged at the corners of a square.

15. (Original) A hand-held unit in accordance with claim 1 wherein said source of light includes a plurality of individual light sources facing the front of the case and arranged in a plane, with said individual light sources being spatially separated such that they satisfy the Raleigh criterion for the separation of two Gaussian pulses.

16. (Original) A hand-held unit in accordance with claim 15 wherein there are four individual light sources arranged at the corners of a square.

17. (Original) A hand-held unit in accordance with claim 16 wherein said individual light sources are sufficiently separated that the reflections of each individual light source from the patient's skin or the surface of said window lie outside the field of view of said imaging device.

18. (Original) A hand-held unit in accordance with claim 1 wherein said source of light includes a plurality of individual light sources sufficiently separated that the reflections of each individual light source from the patient's skin or the surface of said window lie outside the field of view of said imaging device.

19. (Original) A hand-held unit in accordance with claim 1 wherein at least one of said cones is adapted to permit the imaging of a lesion and another of said cones is adapted to permit the imaging of a reference material, and said cones have windows of the same thickness.

20. (Original) A hand-held unit in accordance with claim 19 wherein said same thickness is at least 5 millimetres.

21. (Original) A hand-held unit for facilitating the imaging of an area of a patient's skin comprising

a hand-held case,

a source of light inside the case for directing light toward the front of the case,

an imaging device in the case for generating imaging signals from light derived from said area of skin, and

at least two different cones having different functions attachable to the front of said case each having

a transparent window of the same thickness for bearing against an area of skin,

said at least two different cones positioning their respective windows at the same distance from said imaging device.

22. (Original) A hand-held unit in accordance with claim 21 wherein said same thickness is at least 5 millimetres.

23-29. (Canceled)

30 - 60. (Withdrawn)

61. (Original) A cone for a hand-held unit that facilitates the imaging of an area of a patient's skin, said hand-held unit having

a case,

a source of light inside the case for directing light toward the front of the case,

and

an imaging device for generating an imaging signal from light derived from said area of skin,

said cone having a transparent window at the front thereof with a plurality of reference targets of known colours on an outer surface that bears against the skin of a patient,

said cone being attachable to the front of said case and having a removable reference material thereon.

62. (Original) A cone in accordance with claim 61 wherein said reference material is on said window such that upon removal it cannot be re-used.

63. (Original) A cone for a hand-held unit that facilitates the imaging of an area of a patient's skin, said hand-held unit having

a case,

a source of light inside the case for directing light toward the front of the case, and

an imaging device for generating an imaging signal from light derived from said area of skin,

said cone being attachable to the front of said case and having a transparent window at the front thereof with a plurality of reference targets of known colours on an

outer surface that bears against the skin of a patient.

64. (Original) A cone for a hand-held unit that facilitates the imaging of an area of a patient's skin, said hand-held unit having a case,

a source of light inside the case for directing light toward the front of the case, and

an imaging device for generating imaging signals from light derived from said area of skin,

said cone being attachable to the front of said case and having a transparent window at the front thereof whose thickness is at least 5 millimetres for bearing against the skin of a patient.

65. (Original) A cone in accordance with claim 64 wherein said transparent window has side edges that are absorptive and non-radiating.

66 - 67. (Withdrawn)